

Determining Sustainable Waste Management Practices in College and University Dining Services Using the Theory of Planned Behavior



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PURPOSE & OBJECTIVES

Primary Purposes:

- Determine the attitudes about sustainable waste management for college and university dining service directors.
- Identify the subjective norms about sustainable waste management for college and university dining service directors.
- Explore the barriers to implementing a sustainable waste management program in college and university dining centers.

Secondary Purpose:

- Examine differences in attitudes, subjective norms, implementation and barriers about sustainable waste management by age of directors, number of meals served and area of the country.

BACKGROUND

21st century we are facing...

- Overrun of Solid Waste Materials
- Global Warming & Climate Change
- Natural Resource Depletion (Goodland, 1995; Hedin & Likens, 1996; Last, 1993).

“Green Movement”

- The concept of sustainability has begun to gain momentum in various functions & activities in the hospitality industry (Michael, 1999).
- Strategies for sustainability adopted by governments, institutions, operations & individual households (CNRES, 2006).
- Many colleges & universities joined the green campus competition.
- Thus, college and university foodservice directors play an important role in environment management (especially in sustainable waste management) stewardship.
- Research initiatives address growing consumer awareness and attitudes toward environmental management (Gustin & Weaver, 1996; Jauhari & Manaktola, 2007).
- Studies have focused on identifying “green movement” initiatives for hotels and restaurants and their motivations for environmental management (Bohdanowicz, 2005; Kirk, 1995; Kirk, Lynch, & Tzschetke, 2008; Mensah, 2006).
- To date, few studies conducted to determine college and university foodservice directors’ (FSDs’) attitudes, subjective norms, and barriers to establishing a sustainable waste management (SWM) program.
- Research is needed to measure what factors affect the college and university FSDs’ responses to SWM issues (Aber & Mallory, 2009)

RESEARCH HYPOTHESES

- H1: College and university FSDs’ attitudes toward waste management are positively associated with their intentions of implementation SWM programs.
- H2: College and university FSDs’ subjective norms toward SWM are positively associated with their intentions of implementing SWM programs
- H3: Barriers of SWM at college and university foodservices are negatively associated with college and university FSDs’ intentions of implementing SWM programs.
- H4: FSDs’ intentions of implementing SWM programs at college and university dining facilities are positively associate their behaviors of implementing SWM programs.

LITERATURE REVIEW

Evolution of Sustainability

Concept of Sustainable Development (three dimensions)

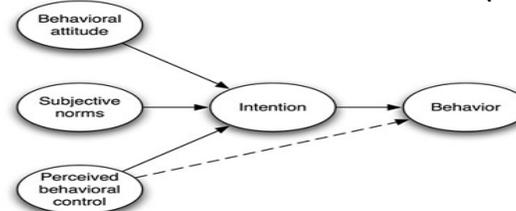
- Social Sustainability
- Environmental Sustainability
- Economic Sustainability

Sustainable Development (SD) Models (Kitzhaber, 2000).

- Applications for Sustainable Development
- Sustainable Waste Management Initiative (Hotels & Resorts)
- Sustainable Waste Management Initiative(Fast-food Chains)

METHODOLOGY

THEORY OF PLANNED BEHAVIOR (TPB)



- To predict whether a person intends to do something, use three predictors: (Ajzen, 1991)
 - If the person is in favor of doing it (‘attitude’)
 - How much the person feels social pressure to accomplish it (‘subjective norms’)
 - If the person feels in control of the action (‘perceived behavioral control’)

METHODOLOGY (Continued)

Population & Sample Size

- The population (n=2,936) for this study will be members of National Association of College & University Food Services (NACUFS) directors who have e-mail addresses.
- An instrument will be developed based on previous research and focus group input. A response rate of 20% (n=577) is desired to conduct statistical analysis.

Data Collection & Statistical Analysis

- An online survey using the Axio system will be e-mailed to FSDs.
- The online letter will introduce the instrument, the research goals, and provide a timeframe for completion.
- A response rate of 20% is desired to conduct statistical analysis.
- SPSS 15.0 used for data analyses
- Statistical significance at P<0.05.

Research Questionnaire Development

- Experimental Questionnaire Development
- Based on literature review
 - Instrument identification

- Interview Focus Group
- Approximately 25 participants
 - Asses clarity, content, applicability

- Questionnaire Modification
- Modify based on focus group comments and advice

- Questionnaire Pre-test
- Directors, managers, and administrators
 - Modify based on feedback

- Pilot Questionnaire Mailing / Data Collection
- Instrument e-mailed, reminders sent
 - Test reliability of measurement

- Statistical Data Analyses
- Multiple regression and correlation analyses to test hypotheses

SIGNIFICANCE AND IMPLICATIONS

- No research has measured how differently college and university FSDs are responding to the NACUFS Sustainability Guide. More research is needed in Sustainable Development.
- It helps FSDs to better understand how to apply sustainability knowledge to develop practical outcomes and solutions.
- Limitations: Low response rate for on-line surveys; efforts to increase participation may be required to obtain an adequate sample size; surveys that are self-administered have limitations; can not generalize results to other foodservice operations.